

YAMAHA NS-W1

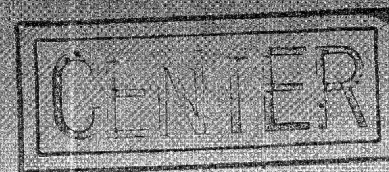
Natural Sound Super Woofer Speaker System

Low Frequency Response down to 20 Hz

Built-In 35 W Amplifier, Switchable Cutoff Frequencies

Functional Design, Attractive Styling

Supplied Mixing Adaptor Fits Any System



OWNER'S MANUAL



Thank you for purchasing the Yamaha NS-W1 super woofer system.

CONTENTS

CAUTION: UL1270	1
CAUTION: READ THIS BEFORE OPERATING YOUR NS-W1	2
FUNCTION	2
CONNECTIONS	3
SUPER WOOFER PLACEMENT	4
IN COMBINATION WITH MINI SPEAKERS	5
SPECIFICATIONS	5

IMPORTANT!

Please record the serial number of your unit in the space below:

Model : NS-W1

Serial No. :

The serial number is located on the rear of the cabinet. Retain this Owner's Manual in a safe place for future reference.

WARNING

To prevent fire or shock hazard, do not expose this appliance to rain or moisture.

CAUTION (PREPARED IN ACCORDANCE WITH UL STANDARD 1270)

1

Read Instructions — All the safety and operating instructions should be read before the appliance is operated.

2

Retain Instructions — The safety and operating instructions should be retained for future reference.

3

Heed Warnings — All warnings on the appliance and in the operating instructions should be adhered to.

4

Follow Instructions — All operating and other instructions should be followed.

5

Water and Moisture — The appliance should not be used near water — for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

6

Carts and Stands — The appliance should be used only with a cart or stand that is recommended by the manufacturer.

7

Wall or Ceiling Mounting — The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.

8

Ventilation — The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

9

Heat — The appliance should be situated away from heat sources such as radiators, stoves, or other appliances that produce heat.

10

Power Sources — The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

11

Power-Cord Protection — Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

12

Cleaning — The appliance should be cleaned only as recommended by the manufacturer.

13

Nonuse Periods — The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

14

Object and Liquid Entry — Care should be taken so that objects do not fall into and liquids not spilled into the inside of the appliance.

15

Damage Requiring Service — The appliance should be serviced by qualified service personnel when:

- A. The power-supply cord or the plug has been damaged; or
- B. Objects have fallen, or liquid has been spilled into the appliance; or
- C. The appliance has been exposed to rain; or
- D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
- E. The appliance has been dropped, or the cabinet damaged.

16

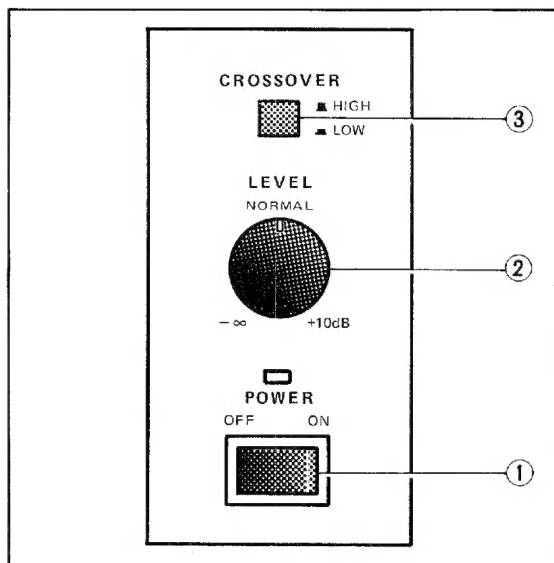
Servicing — The user should not attempt to service the appliance beyond those means described in the operating instructions. All other servicing should be referred to qualified service personnel.

NS-W1

CAUTION READ THIS BEFORE OPERATING YOUR NS-W1

- 1** The NS-W1 is a sophisticated Super woofer system. To ensure proper operation for the best possible performance, please read this manual carefully.
- 2** Choose the installation location of your NS-W1 carefully. Avoid placing it in direct sunlight or close to a source of heat. Also avoid locations subject to vibration and excessive dust, heat cold or moisture. Keep it away from such sources of hum as transformers or motors.
- 3** Do not open the cabinet as this might result in damage to the set or electrical shock. If a foreign object should get into the set, contact your dealer.
- 4** When removing the power plug from the wall outlet, always pull directly on the plug; never yank the cord.
- 5** Do not attempt to clean the NS-W1 with chemical solvents as this might damage the finish. Use a clean, dry cloth.
- 6** The speaker system contains strong magnets, so television sets, watches, magnetic tape, etc. should be kept at a reasonable distance.
- 7** Placing your turntable on top of the speaker cabinet or on the same shelf may cause howling. The turntable should be placed where vibrations from the speakers will not reach it.

FUNCTIONS



1 Power Switch

This is the sea-saw type power switch. when turned on, the power indication will illuminate.

2 Volume Control

Turning the Volume control clockwise increases the volume.

* Always raise volume levels gradually.

* Make sure the Volume control is set to the "∞" position before power is turned on or before beginning turntable play; otherwise, a sudden low frequency tone burst may occur.

* Since the human ear is less sensitive to low frequency sounds, considerably boosted low frequency response may not seem excessive even when the low frequency output level may in fact be two or three times that of middle and high range output levels. It is recommended that you keep the NS-W1 volume setting at the NORMAL position (designed for small speakers with a 90 dB efficiency rating and an 8 ohm impedance). You can then adjust overall volume of both Super Woofer and normal speakers with the Volume control on your amplifier. If you set the NS-W1 volume control near the MAX position and then raise overall volume with the amplifier's volume control, both the NS-W1 and your amplifier are highly susceptible to clipping distortion. Use good judgement when setting the NS-W1 volume control to other than the NORMAL position.

3 Crossover Frequency Selector

If the woofer in the speaker systems you are using is greater than 14 cm (5-1/2") in diameter, set the Crossover Frequency Selector to the LOW position. If the woofer diameter is less than 14 cm in diameter, set it to the HIGH position. Setting the Crossover switch to HIGH when using speakers greater than 14 cm in diameter will result in over-emphasized bass response with a "peak" at around 150 kHz, along with unnatural sound reproduction.

NS-W1

CONNECTIONS

■CONNECTING ONE NS-W1 SUPER WOOFER

1. If your amplifier does not have terminals for both A and B speaker pairs, connect the NS-W1 and the speakers to the mixing adaptor as shown in Fig. 1. The mixing adaptor connects to the speaker terminals on the rear panel of your amplifier as shown.
2. If your amplifier does have terminals for both A and B speaker pairs, connect the NS-W1 and one pair of speakers to the mixing adaptor as shown in Fig. 2. Connect the mixing adaptor to either the A or B speaker terminals on the rear panel of your amplifier as shown. Connect the other pair of speakers directly to the speaker terminals on the rear panel of your amplifier. Connecting the NS-W1 in this way allows you to listen with or without Super Woofer performance, according to the A or B speaker pair selected with the amp's front panel speaker selector.

■CONNECTING TWO NS-W1 SUPER WOOFERS

1. If you intend to use two NS-W1 Super Woofer systems, Connect them as shown in Fig. 3. Connect one NS-W1 and the left (L) channel speaker to the mixing adaptor, then connect this mixing adaptor to the left (L) speaker terminal on the rear panel of your amplifier. Connect the other NS-W1 and the right (R) channel speaker to the mixing adaptor and the right (R) channel speaker terminal on the amp's rear panel in the same way.

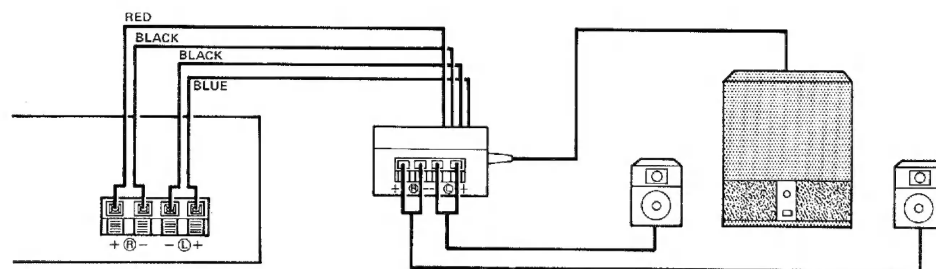


Fig. 1

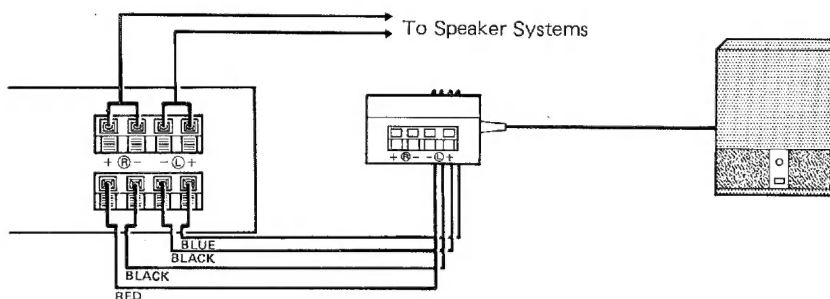


Fig. 2

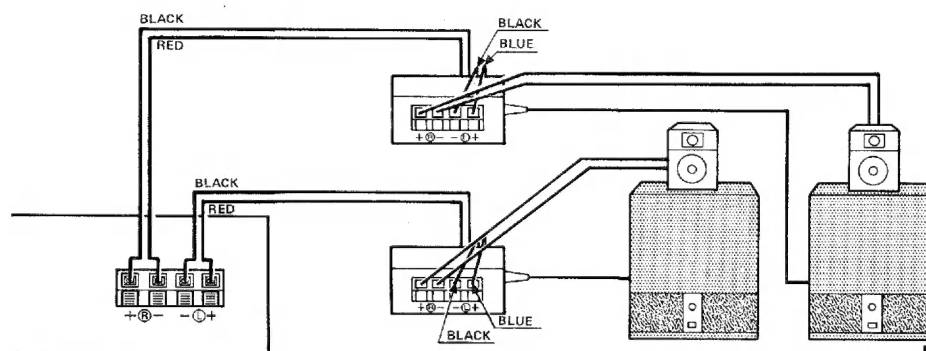


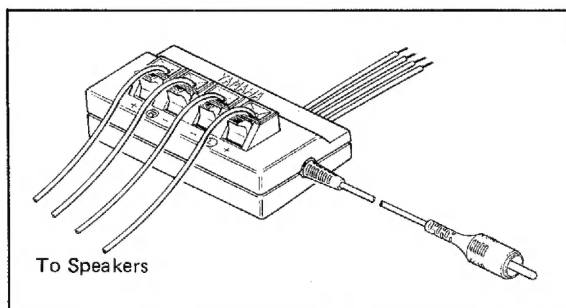
Fig. 3

NS-W1

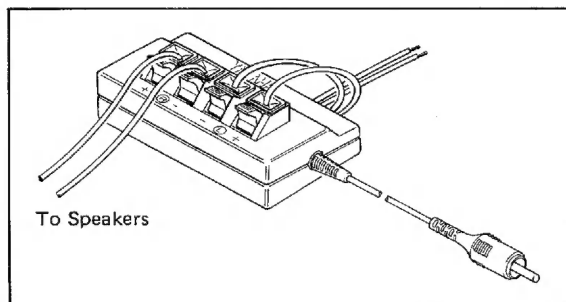
SUPER WOOFER PLACEMENT

※CONNECTIONS TO THE MIXING ADAPTOR

When connecting one NS-W1 Super Woofer, connect the speakers to the mixing adaptor and connect the mixing adaptor to the amplifier as shown in the following diagram.



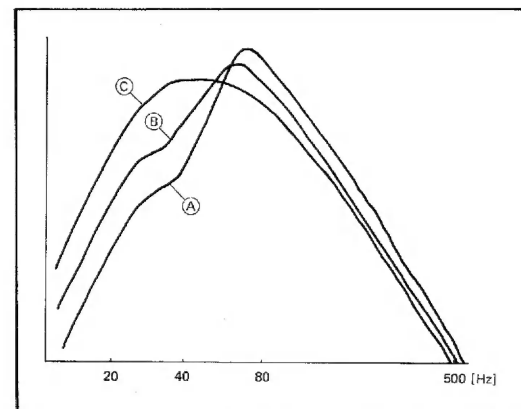
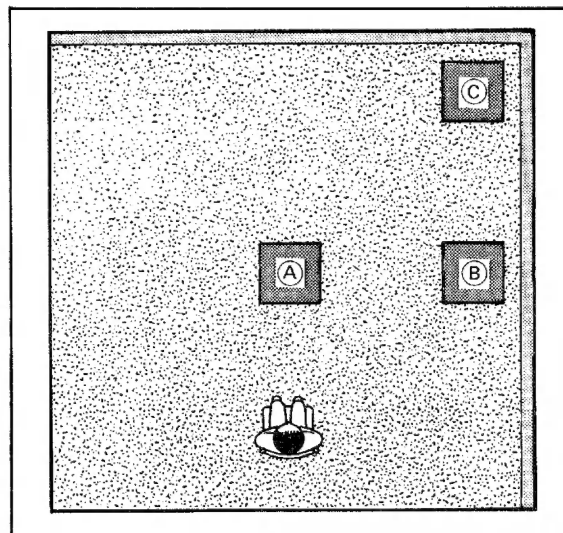
When connecting two NS-W1 Super Woofers, connect the speaker to the mixing adaptor and connect the mixing adaptor to the amplifier as shown in the following diagram.



* The mixing adaptor may be fastened to a system rack, amp rear panel, etc. by using the double-sided adhesive tape supplied with the Super Woofer system.

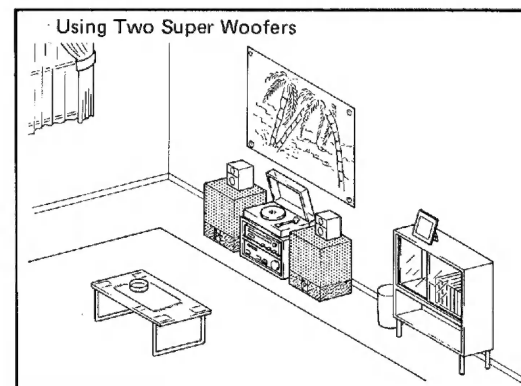
■ USING ONE SUPER WOOFER

The human ear has poor directionality (locating the source of sound) below a certain frequency level. Since NS-W1 Super Woofer response falls below this frequency level, having only one super woofer will not result in unbalanced overall response due to its location. In addition to this fact, NS-W1 design is such that the actual speaker inside the cabinet faces downward, creating an even dispersion of the sound pressure level throughout the room. When using just one NS-W1 super Woofer, the location will have no effect on the overall balance of the sound you hear.



* This diagram shows change in frequency response according to speaker location within a room.

A component system using two NS-W1 Super Woofers is shown here.



...the ...

■ e.g. YAMAHA NS-10M

Figure 1 is a line graph showing the frequency dependence of the normalized intensity of the first harmonic of the scattered light. The x-axis represents frequency in Hz, with major ticks at 30, 50, 100, 200, and 300. The y-axis represents normalized intensity, with major ticks at 0, 0.2, 0.4, 0.6, 0.8, and 1.0. Three curves are plotted, each labeled with a text box and an arrow pointing to the curve:

- NS-W1+NS-10M**: This curve has the highest peak, reaching a normalized intensity of approximately 0.85 at a frequency of about 80 Hz.
- NS-10M**: This curve has a peak of approximately 0.75 at a frequency of about 80 Hz.
- NS-W1**: This curve has the lowest peak, reaching a normalized intensity of approximately 0.65 at a frequency of about 80 Hz.

All three curves show a similar trend: they rise from a frequency of 30 Hz, reach a peak between 80 and 100 Hz, and then gradually decrease as the frequency increases towards 300 Hz. The NS-W1 curve shows a more pronounced decrease after its peak compared to the other two.

SPECIFICATIONS

Unit.	.25cm (10") Woofer (JA-2530)
Cabinet.	50ℓ
Main Amplifier	
6Ω, 20 to 200Hz (0.1% THD)	.35W
Subsonic Filter(Biltin)	20Hz 18dB/oct
Crossover	
High.	150Hz 24dB/oct
Low.	.75Hz 18dB/oct
Power Supply	AC120V 60Hz
Power Consumption	34W
Dimensions(W x H x D)	395 x 525 x 400 mm (15-1/2" x 20-5/8" x 15-3/4")
Weight	15.5 kg (34.1 lbs)
Accessory	Mixing Adaptor Double-sided Tape

Specifications subject to change without notice.